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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,752	10/27/2003	Kenji Okimoto	OTA-0004	8836

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RADER FISHMAN & GRAUER PLLC  
LION BUILDING  
1233 20TH STREET N.W., SUITE 501  
WASHINGTON, DC 20036

EXAMINER
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ZIMMER, MARC S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/692,752	<b>Applicant(s)</b> OKIMOTO ET AL.	
	<b>Examiner</b> Marc S. Zimmer	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☒ Claim(s) 4-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***Specification***

The Examiner objects to Applicant's characterization of the polymer coating material as a "dimethyldichlorosilane polymer" as no such polymer exists. Ostensibly, Applicant is referring to a polydimethylsiloxane polymer *derived from* dimethyldichlorosilane. Clarification is required.

### ***Claim Objections***

Claims 1-6 are objected to because they also mention a dimethyldichlorosilane polymer. For the purpose of examination, it has been presumed that it was Applicant's intention to recite polydimethylsiloxane, which is the product obtained upon polymerizing dimethyldichlorosilane.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. In claim 1, Applicant recites an,

"applicator for strings characterized in that dimethyldichlorosilane polymer is retained in a retainer."

However, it is not at all clear how the applicator, polymer, and retainer are related to one another.

A primary embodiment of Applicant's invention is one where a sponge is imbued with a polymer where the sponge apparently represents the retainer element. The

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polymer-impregnated sponge is housed in a similarly shaped container and the impregnated sponge and protective housing together constitute the applicator. It is the Examiner's position that not even the skilled artisan would be able to readily envision this article given the awkward manner in which the invention is claimed. (It is appreciated that the claims are not so narrowly written as to limit the invention to a polysiloxane-soaked sponge housed in a container- indeed, other inventions delineated herein are, in the Examiner's estimation, fully within the scope of the claims but are hardly similar in design to that which has been set forth as the favored embodiment- but the claim must, at the very least, aptly describe the article envisioned even if only in broad terms. Insofar as it is not even clear, for instance, that the retainer is a component of the applicator, the description is lacking. Applicant is required to more fully describe the elements of the invention and their cooperative relationships in their response to this Office action.

### ***Claim Analysis***

First, it should be noted that the phrase "for strings" is merely a recitation of intended use and is, therefore, not assessed patentable weight. "If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir.1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550,

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1553 (Fed. Cir. 1997) (“where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation”); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim).

In view of this, claims 1-6 essentially claim a coating implement used for applying polydimethylsiloxane to a substrate wherein the implement features a retainer that retains the polysiloxane. (A housing is not expressly mentioned in the claim so it may be a component of the invention or not. That is, the retainer and polysiloxane alone may constitute the claimed applicator.) *In arguendo*, even it were necessary to give weight to the aforementioned phrase, it is the Examiner's position that most silicone-dispensing coating implements disclosed in the art would anticipate the claim, the absence of any express mention of strings as a substrate notwithstanding, because they would *inherently* be capable of carrying out this operation (though perhaps with less efficacy).

It is presumed for the purpose of evaluating claim 3 against the prior art that “scourer” is equivalent to an abrasion-imparting material.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kimura et al., U.S. patent # 6,519,440 and the article entitled "Determination of Oxygen in Organosilicon Polymers and Organic Materials by Inert-Gas Fusion with a Platinum-Carbon Converter" authored by Aramata et al (hereinafter *Aramata*). Kimura discloses a silicone oil application device having (i) a silicone oil retaining member (denoted as 2 in Figure 2) that is preferably a porous ceramic but may also be other porous materials such as a sponge according to column 4, lines 36-40, (ii) an oil transfer layer (denoted as 11 in Figure 2) made of a fiber felt (column 5, lines 8-10), and an application amount control layer (denoted as 3 in Figure 2) made of a porous stretched PTFE film (column 5, lines 35-39). The Application oil is a 10 to 50 cSt silicone oil (column 4, lines 32-34) of which KF 96-100 manufactured by Shin Etsu is exemplary. According to the *Aramata*, this product is a polydimethylsiloxane oil (page 544) hence the application polymer is the same as that mandated by the claim.

It is acknowledged that the Examiner has invoked two citations in a statement of anticipation. According to section 2131.01 of the MPEP, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to:

(A) Prove the primary reference contains an "enabled disclosure; "

(B) Explain the meaning of a term used in the primary reference; or

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(C) Show that a characteristic not disclosed in the reference is inherent.

In this instance, Aramata was cited only to illustrate that the application oil, which is disclosed as a trade name by the Kimura, is equivalent to the polymer mentioned in the claims.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Zechman et al., U.S. patent # 6,358,893. Zechman discloses lubricating aerosol compositions (abstract) comprising a hydrofluorocarbon propellant and a silicone based fluid. Exemplary of the fluids are the polydimethylsiloxanes of varying viscosities and having the tradename DC 200 (column 4, lines 15-25). Notably, DC200 fluids having a viscosity of 100 cSt are expressly mention in Table 1, Examples 8 and 10. (DC210H, which is essential to all but a couple of the embodiments outlined in Table 1 is also a polydimethylsiloxane but is iron-functionalized and, hence, does not correspond to the claimed polymer. In any case, claims 2 and 3 are anticipated by Zechman's disclosure of Examples 8 and 10.) The aerosol is, of course housed in a container that, together with the spray head, constitute an applicator.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ueba et al., EP 775 994 A2. Ueba discloses coating strings for musical instruments with a solution/emulsion of a siloxane polymer material of which dimethylsilicone resin is exemplary (page 3, lines 31-33). Several coating methods are contemplated on page 4, lines 37-47 with a favored one being to pass the strings over a roller that is partially immersed in a bath containing the polymer coating material. In this instance, the

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container holding the bath represents the claimed retainer and the bath and roller together correspond to the claimed applicator.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueba et al., EP 775 994 A2. Ueba does not expressly disclose the viscosity of the polymer. However, one of ordinary skill in the art would, as a matter of routine experimentation, optimize this parameter by ensuring a sufficiently low viscosity to allow the strings to be uniformly and efficiently coated but not so low that the polymer readily comes off of the string as it is further manipulated, e.g. wound.

***Allowable Subject Matter***

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. It could not be ascertained why one of ordinary skill would have been motivated to blend the polymer with either a colorant or abrasion-imparting material prior to use, especially in light of the substrates mentioned in the references.



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JP 56-49170 is cited as being of interest for their disclosure of a process of making strings for a tennis racket that entails in a final step coating with a protective resin such as a silicone. There is, however, no description of how the coating operation is carried out.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 11, 2005  
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Marc Zimmer  
Marc Zimmer  
AU 1712